

RW

PCT09

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/890,167

DATE: 08/06/2001
 TIME: 10:18:43

Input Set : A:\Nobf4701.app
 Output Set: N:\CRF3\08062001\I890167.raw

3 <110> APPLICANT: Paiva, Nancy L.
 4 Hipskind, John D.
 6 <120> TITLE OF INVENTION: TRANSGENIC PLANTS MODIFIED TO CONTAIN RESVERATROL
 7 GLUCOSIDE AND USES THEREOF
 9 <130> FILE REFERENCE: 11137/04704
 11 <140> CURRENT APPLICATION NUMBER: US/09/890,167
 12 <141> CURRENT FILING DATE: 2001-07-27
 14 <150> PRIOR APPLICATION NUMBER: 60/117,888
 15 <151> PRIOR FILING DATE: 1999-01-29
 17 <160> NUMBER OF SEQ ID NOS: 4
 19 <170> SOFTWARE: PatentIn Ver. 2.1
 21 <210> SEQ ID NO: 1
 22 <211> LENGTH: 3089
 23 <212> TYPE: DNA
 24 <213> ORGANISM: Arachis hypogaea
 26 <220> FEATURE:
 27 <221> NAME/KEY: CDS
 28 <222> LOCATION: (904)..(2064)
 30 <400> SEQUENCE: 1
 31 aagcttgcatt gcctgcaggta caacatgggt gggcacgaca cacttgtcta ctccaaaaat 60
 33 atcaaaagata cagtctcaga agaccaaagg gcaattgaga cttttcaaca aagggtata 120
 35 tccggaaaacc tccttcggatt ccattggcca gctatctgtc actttattgt gaagatagt 180
 37 gaaaaggaag gtggctccta caaaatgccat cattgcgata aaggaaaggc catcggtgaa 240
 39 gatgcctctg ccgcacagtgg tcccaaagat ggacccccc acgcgaggag catcggtgaa 300
 41 aaagaagacg ttccaaaccac gtcttcaaaag caagtggatt gatgtgtcaa catgggtggag 360
 43 cacgcacacac ttgtctactc caaaaatatac aaagatacag tctcagaaga ccaaaggc 420
 45 attgagactt ttcaacaaag ggtataatcc gggaaacctcc tcggattcca ttgcccagct 480
 47 atctgtcact ttatttgaa gatagtggaa aaggaaagggtg gtcctcacaa atgccccatcat 540
 49 tgcgataaaag gaaaggccat cggtgaagat gcctctgccc acagtggtcc caaagatgga 600
 51 ccccccacccca cgaggagcat cgtggaaaaaa gaagacgttc caaccacgtc ttcaaaagcaa 660
 53 gtggatttgcgttatctc cactgcgtg agggatgcgt cacaatccca ctatccttc 720
 55 aagacccttc ctcttatataa ggaagttcat ttggagagga cctcgagaat tctcaacaca 780
 57 acatatacaa aacaaacgaa tctcaagcaa tcaagcattc tacttctatt gcagcaattt 840
 59 aaatcatttc tttaaaagca aaagcaattt tctgaaaatt ttcaccattt acgaacgata 900
 61 gcc atg gaa ggg gga att cgc aag gtt caa agg gca gaa ggt cca gca 948
 62 Met Glu Gly Gly Ile Arg Lys Val Gln Arg Ala Glu Gly Pro Ala
 63 1 5 10 15
 65 act gta ttg gca att gga aca gca aat cca ccg aac tgt att gat cag 996
 66 Thr Val Leu Ala Ile Gly Thr Ala Asn Pro Pro Asn Cys Ile Asp Gln
 67 20 25 30
 69 agt aca tat gca gat tat tat ttt aga gta acc aat agc gaa cac atg 1044
 70 Ser Thr Tyr Ala Asp Tyr Tyr Phe Arg Val Thr Asn Ser Glu His Met
 71 35 40 45
 73 act gat ctc aag aag aaa ttt cag cgc atc tgt gag aga aca cag atc 1092
 74 Thr Asp Leu Lys Lys Phe Gln Arg Ile Cys Glu Arg Thr Gln Ile
 75 50 55 60
 77 aag aac aga cat atg tac tta aca gaa gag ata cta aaa gaa aat cct 1140

ENTERED

RAW SEQUENCE LISTING

DATE: 08/06/2001
TIME: 10:18:43

Input Set : A:\Nobf4701.app
Output Set: N:\CRF3\08062001\I890167.raw

78	Lys	Asn	Arg	His	Met	Tyr	Leu	Thr	Glu	Glu	Ile	Leu	Lys	Glu	Asn	Pro	
79	65						70				75						
81	aac	atg	tgt	gca	tac	aag	gca	ccg	tca	ttg	gat	gca	aga	gaa	gac	atg	1188
82	Asn	Met	Cys	Ala	Tyr	Lys	Ala	Pro	Ser	Leu	Asp	Ala	Arg	Glu	Asp	Met	
83	80						85			90		95					
85	atg	atc	agg	gag	gta	cca	aga	gtt	gga	aaa	gag	gct	gca	acc	aag	gcc	1236
86	Met	Ile	Arg	Glu	Val	Pro	Arg	Val	Gly	Lys	Glu	Ala	Ala	Thr	Lys	Ala	
87							100			105		110					
89	atc	aag	gaa	tgg	ggc	cag	cca	atg	tct	aag	atc	aca	cat	ttg	atc	ttc	1284
90	Ile	Lys	Glu	Trp	Gly	Gln	Pro	Met	Ser	Lys	Ile	Thr	His	Leu	Ile	Phe	
91							115			120		125					
93	tgc	acc	acc	agc	ggc	gtt	gcf	ttg	cct	ggc	gtt	gat	tac	gaa	ctc	atc	1332
94	Cys	Thr	Thr	Ser	Gly	Val	Ala	Leu	Pro	Gly	Val	Asp	Tyr	Glu	Leu	Ile	
95							130			135		140					
97	gta	ctt	tta	ggg	ctg	gac	cca	tgc	gtc	aag	agg	tac	atg	atg	tac	cac	1380
98	Val	Leu	Leu	Gly	Leu	Asp	Pro	Cys	Val	Lys	Arg	Tyr	Met	Met	Tyr	His	
99							145			150		155					
101	caa	ggf	tgc	ttc	gct	ggf	ggc	act	gtc	ctt	cgt	ttg	gct	aag	gac	ttg	1428
102	Gln	Gly	Cys	Phe	Ala	Gly	Gly	Thr	Val	Leu	Arg	Leu	Ala	Lys	Asp	Leu	
103	160						165			170		175					
105	gct	gaa	aac	aac	aag	gat	gct	cgt	gta	ctt	atc	gtt	tgt	tct	gag	aat	1476
106	Ala	Glu	Asn	Asn	Lys	Asp	Ala	Arg	Val	Leu	Ile	Val	Cys	Ser	Glu	Asn	
107							180			185		190					
109	acc	gca	gtc	act	ttc	cgc	ggf	cct	agt	gag	aca	gac	atg	gat	agt	ctt	1524
110	Thr	Ala	Val	Thr	Phe	Arg	Gly	Pro	Ser	Glu	Thr	Asp	Met	Asp	Ser	Leu	
111							195			200		205					
113	gta	gga	caa	gca	ttg	ttt	gcc	gat	gga	gct	gct	gcf	att	atc	att	ggf	1572
114	Val	Gly	Gln	Ala	Leu	Phe	Ala	Asp	Gly	Ala	Ala	Ala	Ile	Ile	Ile	Gly	
115							210			215		220					
117	tct	gat	cct	gtg	cca	gag	gtt	gag	aag	cct	atc	ttt	gag	ctt	gtt	tcg	1620
118	Ser	Asp	Pro	Val	Pro	Glu	Val	Glu	Lys	Pro	Ile	Phe	Glu	Leu	Val	Ser	
119							225			230		235					
121	acc	gat	caa	aaa	ctt	gtc	cct	ggc	agc	cat	gga	gcc	atc	ggf	ggf	ctc	1668
122	Thr	Asp	Gln	Lys	Leu	Val	Pro	Gly	Ser	His	Gly	Ala	Ile	Gly	Gly	Leu	
123	240						245			250		255					
125	ctt	cgt	gaa	gtt	gga	ctt	aca	ttc	tat	ctt	aac	aag	agt	gtt	cct	gat	1716
126	Leu	Arg	Glu	Val	Gly	Leu	Thr	Phe	Tyr	Leu	Asn	Lys	Ser	Val	Pro	Asp	
127							260			265		270					
129	att	att	tcg	caa	aat	atc	aat	gac	gcf	ctc	aat	aaa	gct	ttt	gat	cca	1764
130	Ile	Ile	Ser	Gln	Asn	Ile	Asn	Asp	Ala	Leu	Asn	Lys	Ala	Phe	Asp	Pro	
131							275			280		285					
133	ttg	ggf	att	tct	gat	tat	aac	tca	ata	ttt	tgg	att	gca	cat	cct	ggf	1812
134	Leu	Gly	Ile	Ser	Asp	Tyr	Asn	Ser	Ile	Phe	Trp	Ile	Ala	His	Pro	Gly	
135							290			295		300					
137	ggg	cgt	gca	att	ttg	gac	cag	gtt	gaa	cag	aag	gtg	aac	ttg	aag	cca	1860
138	Gly	Arg	Ala	Ile	Leu	Asp	Gln	Val	Glu	Gln	Lys	Val	Asn	Leu	Lys	Pro	
139							305			310		315					
141	gag	aag	atg	aaa	gcc	act	aga	gat	gtg	ctt	agc	aat	tat	ggt	aac	atg	1908
142	Glu	Lys	Met	Lys	Ala	Thr	Arg	Asp	Val	Leu	Ser	Asn	Tyr	Gly	Asn	Met	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/890,167

DATE: 08/06/2001
TIME: 10:18:43

Input Set : A:\Nobf4701.app
Output Set: N:\CRF3\08062001\I890167.raw

143	320	325	330	335													
145	tca	agt	gcc	tgt	gtg	ttc	ttc	att	atg	gat	ttg	atg	agg	aag	agg	tct	1956
146	Ser	Ser	Ala	Cys	Val	Phe	Phe	Ile	Met	Asp	Leu	Met	Arg	Lys	Arg	Ser	
147																	350
149	ctt	gaa	gaa	gga	ctt	aaa	act	acc	gga	gaa	gga	ctt	gat	tgg	ggt	gtg	2004
150	Leu	Glu	Glu	Gly	Leu	Lys	Thr	Thr	Gly	Glu	Gly	Leu	Asp	Trp	Gly	Val	
151																	365
153	ctt	ttt	ggc	ttt	ggt	cct	ggt	ctc	act	att	gaa	act	gtc	gtt	ctc	cgc	2052
154	Leu	Phe	Gly	Phe	Gly	Pro	Gly	Leu	Thr	Ile	Glu	Thr	Val	Val	Leu	Arg	
155																	380
157	agt	gtg	gcc	ata	taatgcactt	aattatgcatt	atatgcgatt	atatgcgatt	gtgttatttt								2104
158	Ser	Val	Ala	Ile													
159																	385
161	ttaataattt	tctttggctc	taaaataagc	taaggtgctg	aatggctcat	atattattag											2164
163	atgagtgaaa	aattaaaaaa	agatgtccaa	agttattct	ttatgcaaac	atcattcaat											2224
165	atcaaagtct	gtatgttta	gtaaaaaaatt	atataaaatt	cttttcaatc	gagcagcata											2284
167	acacatgcct	ttattgattt	ggtttaattt	taagtcttat	tgcactgtgc	acaacatttc											2344
169	aaaagtatat	gtctccttatt	ctcaatcata	tgaaacgtt	tgagtagacaca	gcatttttg											2404
171	atagggttgg	tgatttttagt	ttgttagatt	agtttgttag	gttttgggtt	tttattttta											2464
173	gggaattttt	attctaattt	aaatataactg	attttttaggg	atttttgtat	cttaaatata											2524
175	tgagagaaaa	aagtgagacg	ttaatttcta	aaaaaaacgag	gtgctaattt	ggttcgaaca											2584
177	aaacttttgg	gaatcaattt	gaattacata	tgtgaagttt	gataaaattat	tttggctatt											2644
179	tactcataaa	aagttattaa	atgtgttagt	gtatthaaca	ttttttttat	taacaacggg											2704
181	gtttaatggt	aaaagaaaaaa	taaactaaaa	gacaataactt	gaaaatgaga	taccgataaa											2764
183	atcagcatga	agacgaagag	aagtacaaaa	ggataaatta	atgaatttac	attattcata											2824
185	ctaaggtat	atatttattt	atgggatcc	tctagagtcc	gcaaaaatca	ccagtctctc											2884
187	tctacaaatc	tatctctctc	tattttctc	cagaataatg	tgtgagtagt	tcccagataa											2944
189	gggaatttagg	gttcttataag	ggtttcgctc	atgtgtttag	catataagaa	acccttagta											3004
191	tgtatTTGTA	tttgtaaaat	acttctatca	ataaaatttc	taattcctaa	aacccaaatc											3064
193	cagtgacctg	caggcatgca	agctt														3089
196	<210>	SEQ ID NO:	2														
197	<211>	LENGTH:	387														
198	<212>	TYPE:	PRT														
199	<213>	ORGANISM:	Arachis hypogaea														
201	<400>	SEQUENCE:	2														
202	Met	Glu	Gly	Ile	Arg	Lys	Val	Gln	Arg	Ala	Glu	Gly	Pro	Ala	Thr		
203	1			5				10									15
205	Val	Leu	Ala	Ile	Gly	Thr	Ala	Asn	Pro	Pro	Asn	Cys	Ile	Asp	Gln	Ser	
206					20				25								30
208	Thr	Tyr	Ala	Asp	Tyr	Tyr	Phe	Arg	Val	Thr	Asn	Ser	Glu	His	Met	Thr	
209								35			40						45
211	Asp	Leu	Lys	Lys	Phe	Gln	Arg	Ile	Cys	Glu	Arg	Thr	Gln	Ile	Lys		
212						50			55								60
214	Asn	Arg	His	Met	Tyr	Leu	Thr	Glu	Glu	Ile	Leu	Lys	Glu	Asn	Pro	Asn	
215						65			70				75				80
217	Met	Cys	Ala	Tyr	Lys	Ala	Pro	Ser	Leu	Asp	Ala	Arg	Glu	Asp	Met	Met	
218						85			90								95
220	Ile	Arg	Glu	Val	Pro	Arg	Val	Gly	Lys	Glu	Ala	Ala	Thr	Lys	Ala	Ile	
221						100			105								110

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/890,167

DATE: 08/06/2001

TIME: 10:18:43

Input Set : A:\Nobf4701.app

Output Set: N:\CRF3\08062001\I890167.raw

223 Lys Glu Trp Gly Gln Pro Met Ser Lys Ile Thr His Leu Ile Phe Cys
 224 115 120 125
 226 Thr Thr Ser Gly Val Ala Leu Pro Gly Val Asp Tyr Glu Leu Ile Val
 227 130 135 140
 229 Leu Leu Gly Leu Asp Pro Cys Val Lys Arg Tyr Met Met Tyr His Gln
 230 145 150 155 160
 232 Gly Cys Phe Ala Gly Gly Thr Val Leu Arg Leu Ala Lys Asp Leu Ala
 233 165 170 175
 235 Glu Asn Asn Lys Asp Ala Arg Val Leu Ile Val Cys Ser Glu Asn Thr
 236 180 185 190
 238 Ala Val Thr Phe Arg Gly Pro Ser Glu Thr Asp Met Asp Ser Leu Val
 239 195 200 205
 241 Gly Gln Ala Leu Phe Ala Asp Gly Ala Ala Ala Ile Ile Ile Gly Ser
 242 210 215 220
 244 Asp Pro Val Pro Glu Val Glu Lys Pro Ile Phe Glu Leu Val Ser Thr
 245 225 230 235 240
 247 Asp Gln Lys Leu Val Pro Gly Ser His Gly Ala Ile Gly Gly Leu Leu
 248 245 250 255
 250 Arg Glu Val Gly Leu Thr Phe Tyr Leu Asn Lys Ser Val Pro Asp Ile
 251 260 265 270
 253 Ile Ser Gln Asn Ile Asn Asp Ala Leu Asn Lys Ala Phe Asp Pro Leu
 254 275 280 285
 256 Gly Ile Ser Asp Tyr Asn Ser Ile Phe Trp Ile Ala His Pro Gly Gly
 257 290 295 300
 259 Arg Ala Ile Leu Asp Gln Val Glu Gln Lys Val Asn Leu Lys Pro Glu
 260 305 310 315 320
 262 Lys Met Lys Ala Thr Arg Asp Val Leu Ser Asn Tyr Gly Asn Met Ser
 263 325 330 335
 265 Ser Ala Cys Val Phe Phe Ile Met Asp Leu Met Arg Lys Arg Ser Leu
 266 340 345 350
 268 Glu Glu Gly Leu Lys Thr Thr Gly Glu Gly Leu Asp Trp Gly Val Leu
 269 355 360 365
 271 Phe Gly Phe Gly Pro Gly Leu Thr Ile Glu Thr Val Val Leu Arg Ser
 272 370 375 380
 274 Val Ala Ile
 275 385
 279 <210> SEQ ID NO: 3
 280 <211> LENGTH: 20
 281 <212> TYPE: DNA
 282 <213> ORGANISM: Artificial Sequence
 284 <220> FEATURE:
 285 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer
 287 <220> FEATURE:
 288 <221> NAME/KEY: misc_feature
 289 <222> LOCATION: (1)..(20)
 291 <400> SEQUENCE: 3
 292 ccatgaaagg gggaatttcgc
 295 <210> SEQ ID NO: 4
 296 <211> LENGTH: 20

20

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/890,167

DATE: 08/06/2001

TIME: 10:18:43

Input Set : A:\Nobf4701.app
Output Set: N:\CRF3\08062001\I890167.raw

297 <212> TYPE: DNA
298 <213> ORGANISM: Artificial Sequence
300 <220> FEATURE:
301 <223> OTHER INFORMATION: Description of Artificial Sequence: PCR primer
303 <220> FEATURE:
304 <221> NAME/KEY: misc_feature
305 <222> LOCATION: (1)..(20)
306 <223> OTHER INFORMATION: RS cDNA specific primer for PCR
308 <400> SEQUENCE: 4
309 gagccattca gcaccttagc

20

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/890,167.

DATE: 08/06/2001

TIME: 10:18:44

Input Set : A:\Nobf4701.app

Output Set: N:\CRF3\08062001\I890167.raw

L:11 M:270 C: Current Application Number differs, Replaced Application Number

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date